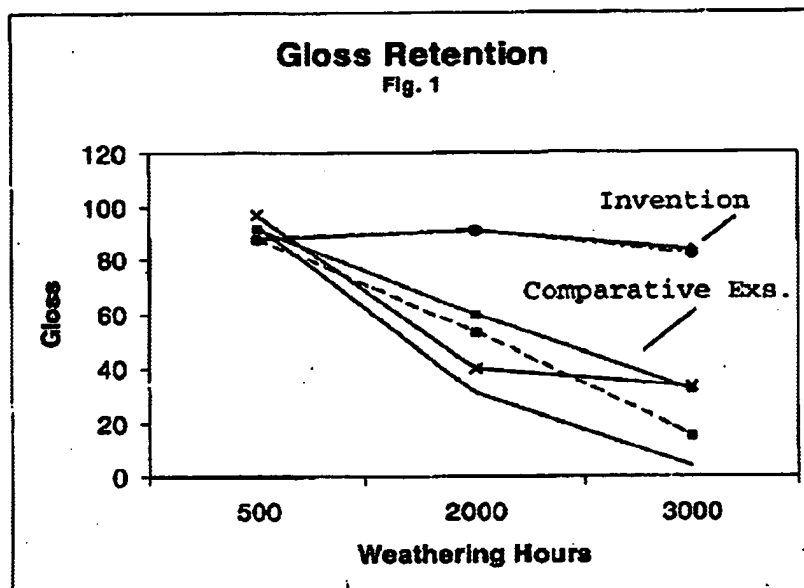


REMARKS/ARGUMENTS

This paper is in response to the Office Action mailed July 14, 2003 for the above-captioned application. Applicants have amended claims for clerical reasons and have added new dependant claim 24 which expressly recites PCCD as the cycloaliphatic polyester. Reconsideration and further examination are respectfully requested.

Applicants request an extension of time to make this paper timely and enclose the fee. The Commissioner is authorized to charge any additional fees to Deposit Account No. 15-0610.

In response to the February 4th, 2003, office action, claim 1 was canceled and replaced with claim 23 to more clearly define the invention. As stated in the amended claim, the composition includes three defined layers in a defined spatial relationship, namely an upper layer, an intermediate layer and a substrate layer. The top two of these layers have a well-defined composition. Specifically, the upper layer consists essentially of a cycloaliphatic polyester and certain specified types of UV stabilizers; the intermediate layer consist essentially of a cycloaliphatic polyester, and may also include TiO_2 or a dye, pigment or special effects additive. As shown in Table 2 of the specification, this combination, which is exemplified by composition 1 has substantially superior resistance to weathering when compared to other combinations of similar materials. (Compositions 2-7). Applicants now enclose a declaration of the inventors, setting forth information for an additional example in accordance with the invention, and four additional comparative examples. The data of the application and of this declaration can be effectively summarized graphically as follows:



As is apparent from this graph, the performance of the compositions in accordance with the invention is substantially different from and superior to other combinations of similar ingredients.

The Examiner again rejected claims 2-18 and 20-23 under 35 USC § 103, as being unpatentable over MacGregor et al. in view of Susi. The Examiner states that MacGregor discloses a polycarbonate substrate and a cycloaliphatic polyester layer which includes UV absorbers and light stabilizers of the general type recited in claim 23. The Examiner acknowledges that MacGregor does not teach the specific UV absorbers and hindered amine light stabilizer (HALS) as recited in the claim. Further, while MacGregor is said to teach an intermediate decorative layer, the Examiner acknowledges that MacGregor does not specifically teach a PCCD intermediate layer. The Examiner answers these issues by citing Susi for a teaching of the combination of a triazine UV absorber and HALS; and by stating that the cycloaliphatic polyester materials of the invention are shown to have improved weatherability and solvent resistance. Applicants respectfully disagree with the rejection.

Looking first at the appropriateness of combining the MacGregor and Susi references, Applicants note that "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986) (citing *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). "[T]he factual inquiry whether to combine references must be thorough and searching." *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ 2d 1001, 1008 (Fed. Cir. 2001). This factual question cannot "be resolved on subjective belief and unknown authority," *In re Lee* 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002); "it must be based on objective evidence of record." *Id.* at 1343, 61 USPQ2d at 1434. Here, the Examiner proposes to combine the teaching of Susi and MacGregor saying, "Since MacGregor expressed interest in gloss retention and weatherability properties, it is the examiner's position that it would have been prima facie obvious to use an additive mixture by Susi's invention in the invention of MacGregor to further improve gloss retention and weatherability properties." (Second office action, page 4 citing first office action, page 6 note 14).

As a first matter, it should be noted that under the conditions tested in MacGregor, both the PC/PCCD blend and the UV stabilized PCCD showed 100% gloss retention. (MacGregor, Table 11). Thus, the need for further improvement is not evident. Furthermore, the nature of the materials stabilized in MacGregor and Susi is different. MacGregor's coating is a surface coating which is generally transparent to allow an underlying decorative layer to be visible. In contrast, Susi's coating is a high solids coating, i.e., a paint. The compositions are different, and there is no reason, other than after-the-fact reconstruction based on Applicants' disclosure to believe that Susi's composition would offer any benefits in MacGregor's upper layer. Thus, the combination of reference is improper.

The Examiner also takes the position that "it would have been prima facie obvious to apply more than one layer of the cycloaliphatic polyester composition to amplify the

weatherability and solvent resistance properties of the film. The result would be a multi-layered structure having an intermediate and upper layer both comprising cycloaliphatic polyester." Applicants point out, however, that this is not the invention of this application. This application specifically claims in claim 23 an upper and an intermediate layer consisting essentially of very specific ingredients, not layers comprising a cycloaliphatic polyester which is what the Examiner says would have been obvious.

Furthermore, the Examiner's assertion that adding an intermediate layer is an obvious way to enhance weatherability is not supported by the reference or presented reasoning. Weathering and solvent resistance is a surface phenomenon and the improved weathering and solvent resistance is attributed to the nature of the surface layer, i.e., a cycloaliphatic polyester as opposed to polycarbonate. Nothing in the MacGregor reference suggests that adding another layer (or making the upper layer thicker) beyond a point of acceptable performance would materially alter these properties. Indeed, the weathering characteristic demonstrated in the present application to be superior is gloss retention. The Examiner has not explained how gloss retention at the surface is reasonably expected to be made better by changing the nature of a layer within the multi-layered structure.

For these reasons, Applicants submit that the Examiner has failed to present a *prima facie* case of obviousness.

In the absence of a *prima facie* case, the scope of the examples is not relevant. It is noted, however, that while the Examiner has argued that the test results disclosed in the application are not commensurate in scope with the claims, she has not said what aspects of the invention are not illustrated by the examples. Nor has she offered any reasons as to why the single example (now two with the declaration) are not convincing, given the specific scope of the claims. There is no requirement for a minimum number of examples (as the Examiner argues), but merely for a representative showing consistent with the scope of the claim. The Examiner has not said why this standard is not met. The Examiner should compare the weathering results for the claimed composition 1 and the comparative examples 2, 3 and 6. Composition 1, which is in accordance with the invention as claimed in claim 23 shows the desired and unexpected gloss retention properties. Composition 2, which has the same intermediate layer but a different commercially available UV absorber than composition 1, namely CYASORB UV-5411 (which is not a hydroxyphenyl triazine or hydroxyphenyl pyrimidine UV absorber), has a poor gloss retention as compared to composition 1's hydroxyphenyl triazine or hydroxyphenyl pyrimidine UV absorber. Comparing composition 1 to composition 3 illustrates that the material of the intermediate layer is important to gloss retention. Composition 3 has the same upper layer, namely it includes PCCD and the hydroxyphenyl triazine or hydroxyphenyl pyrimidine UV absorber, but it has a different intermediate layer composition which includes PCCD and polycarbonate. The comparison shows that the claimed composition of claim 23 has superior weatherability than that of composition 3 and that the connection between the specific compositions of the upper layer and the intermediate layer provides unexpected results. In other words, the combination of the upper layer (i.e. PCCD/UV2) with the intermediate layer (PCCD/TiO₂) produces the unexpected results of the current invention. Notably, the weatherability of example 1, is greatly

enhanced by the combination and interaction of the of the upper layer and the intermediate layer, something that Susi nor MacGregor nor any conceivable combination thereof could teach or let alone suggest.

The most notable example of the importance and unexpected benefit of the intermediate layer of the present invention is illustrated by comparing examples 1 and 6. Examples 1 and 6 are identical in that they both have the same upper layer and substrate layer. However, example 6 differs from example 1 in that it does not include the intermediate layer that is indicative of the present invention. The weatherability of composition 6 is extremely reduced without the intermediate layer. Thus, MacGregor's mere mention of the potential use of an intermediate layer for decorative purposes, without reference to the nature of the material used in that layer cannot render the present invention obvious.

Additional results in the form of comparative examples are supplied to Examiner in the form of a 35 USC 132 affidavit. Some of these results are included in the Figure above, and further demonstrates the importance of the synergy between the upper layer and the intermediate layer. These compositions differ from compositions 1-9 in that they do not contain TiO_2 in the substrate layer. Composition 11, which is in accordance with the invention as claimed in claim 23 shows the desired and unexpected gloss retention properties of the composition as compared to the comparative examples. Composition 10 which has the same intermediate layer but a different UV absorber than composition 11, namely CYASORB UV-5411 (which is not a hydroxyphenyl triazine or hydroxyphenyl pyrimidine UV absorber), has poor gloss retention as compared to composition 11 and the use of a hydroxyphenyl triazine or hydroxyphenyl pyrimidine UV absorber. Comparing composition 11 to composition 12 illustrates that the material of the intermediate layer is important to gloss retention of the upper layer. Composition 12 has the same upper layer, namely it includes PCCD and the hydroxyphenyl triazine or hydroxyphenyl pyrimidine UV absorber, but it has a different intermediate layer composition which includes PCCD and polycarbonate. The comparison shows that the claimed composition of claim 23 has superior weatherability and gloss retention than that of composition 12 and that the connection between the specific compositions of the upper layer and the intermediate layer provides unexpected results. In other words, the combination of the upper layer (i.e. PCCD/UV2) with the intermediate layer (PCCD/ TiO_2) produces the unexpected results of the current invention. These comparative results further demonstrate the importance of the interaction between the upper layer and the intermediate layer in the composition.

In view of the foregoing argument, Applicants submit that claims 2-18 and 20-24, as now pending are not obvious over the cited combination of references. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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